

# Aircraft Structural and Exterior



The aerospace market manufactures jet and propeller aircraft, helicopters, and unmanned drones. Many parts within the manufacturing process require sealant and adhesive application equipment and composites equipment – parts for aircraft exteriors, landing gear, cabin interiors and accessories, flooring, helicopter rotor blades, galleys, seating, toilets, cargo luggage containers, fuselage, windows, honeycomb panels, and seat belts to name a few.

Graco products mix and dispense single- and plural-component materials such as syntactic epoxies and urethanes, as well as lower-viscosity epoxies and urethanes, flexible foams and polysulfides.

The [Graco PosiRatio](#) and the [Graco PR70 Meter, Mix and Dispense System](#) offer advanced two-component dispensing; they handle syntactic materials and dispense them onto honeycomb panels to seal them and also to cover rivets used in assembly. The [Graco HFR Metering System](#) can be used to dispense foam for vibration dampening.

Many aircraft parts are constructed from composite materials and manufactured by resin transfer molding (RTM) or vacuum assisted resin transfer molding (VARTM). [Graco PosiRatio](#) units and [RTM Systems](#) are used to fabricate finished parts by introducing polyester or vinyl ester resins into closed molds containing fiberglass, carbon or other reinforcements.

Polysulfides are often used for exterior aircraft sealing and coating applications, and are also used for sealing fuel tanks. [Graco PosiRatio](#) CTF units mix polysulfides and either dispense them onto the exterior of aircraft or fill high-density cartridges which are then used to dispense the material onto the aircraft.

Tooling paste is a necessary material for designing molds for composite parts. The [Graco VPM Metering System](#) mixes and dispenses up to 25 kg (55 lb) of tooling paste per minute for making molds for composite part manufacturing.

Rigid and flexible polyurethane foam can be used for luggage stowage bins, galleys, lower wall panels, seat cushions, arm chair rests, and for acoustical and thermal insulation as well. The [Graco HFR Metering System](#) offers advanced polyurethane processing technologies at an affordable price.

See [Advanced Composites](#) for RTM, prepreg and infusion of carbon fiber composites.